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09/878,948	06/11/2001	Kenneth H. Abbott	294438022US2	6459

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EXAMINER
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HAILU, TADESSE

ART UNIT	PAPER NUMBER
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2173

8

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/878,948

Applicant(s)

ABBOTT ET AL.

Examiner

Tadesse Hailu

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 62-71 and 76-147 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 82-92 is/are allowed.
- 6) ☐ Claim(s) 62-71, 76-81 and 93-147 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 7.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**BA HUYNH**  
**PRIMARY EXAMINER**

### DETAILED ACTION

1. This Office Action is in response to the Pre-Amendment entered June 11, 2001 for the patent application number 09/<sup>878 948</sup>~~427,680~~ filed on June 11, 2001.
2. The present patent application claims priority from US Application number 09/216,193 filed December 18, 1998.
3. The submitted Information Disclosure Statements are considered and entered into the file folder.
4. The submitted Drawings entered August 2, 2001 are considered and will be reviewed by the Draftsperson's Patent Drawing Review (PTO-948).
5. The pending claims 62-71 and 76-147 are examined as follows.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 62-71, 76-81, 93-121, 123-125, 127-145 and 147 are rejected under 35 U.S.C. 102(a) as being anticipated by John Bates, et al., "Middleware Support for Mobile Multimedia Applications," (1997).

With regard to claim 62:

Bates et al discloses a Middleware Support for Mobile Multimedia Applications.

One of the middleware services offered is a trader. A trader is used to locate objects in an environment (see fig. 1, and section 5.2). The middleware support enables applications to follow mobile users as they move. The mobile user may carry a portable computer with built-in wireless network. Bates further provides a method in this mobile device for providing information about a context of the user that is modeled with multiple context attributes, such as, nearest electronic equipment to the user, location of the user, etc (see section 2.4). Bates also describes the trader receives a request from a client application. The request may include interest in receiving notification when a specified event that is related to at least one of the context attributes occurs (Bates, section 2.2). Bates also describes monitoring (section 2.3) for complex occurrence of information related to the at least one context attributes for an indication of an occurrence of the specified event, such monitoring for example includes to inform or notify the user (David) when his friend (John) enters his room (sections 1.1 and 2.2, Figs. 4, 5).

With regard to claim 63:

As per "... the context attributes represent information about a user of the portable computer." (Bates, section 2.2, 2.3);

With regard to claim 64:

Bates describes an immediate context (location, room) of a user (David or John) (section 1.1, fig. 5). Bates also describes a currently nearby electronic device to the user (see section 1.1).

With regard to claim 65:

Bates further describes the middleware or trader is receiving from a client a

change in a location value, for example the client wants to know when John moves from room1 to room2, when this condition is satisfied the trader notifies the client or the user David that the condition is satisfied. (Bates, sections 2.2, and 2.3).

With regard to claim 66:

As per "...the specified event is availability of a source for supplying values of a specified context attribute." (Bates, section 2.2, Figs. 2, 5, and 6).

With regard to claim 67:

As per "... the specified event is availability of a specified source for supplying values of at least one context attribute." (Bates, section 2.2, Figs. 2, 5, and 6).

With regard to claim 68:

Bates describes the user John may be interested and notified the occurrence of an event if additional situation also satisfied. For example John may be notified when he is the only one in the room. " (Bates, section 1.1 and 2.2, Figs. 5, and 6).

With regard to claim 69:

As per "... receiving of the notification by the first client prompts the first client to present information to a user of the first client." (Bates, section 2.24).

With regard to claim 70:

The claim is a computer-readable medium claim corresponds to claim 62, thus, is rejected under the same reasons given to the rejection of claim 62.

With regard to claim 71:

The claim is a computer portable claim corresponds to claim 62, thus, is rejected under the same reasons given to the rejection of claim 62.

With regard to claim 76:

Bates discloses a computer-implemented method for providing information about a current state that is modeled with multiple state attributes, such as location and nearby device to the user. The method of Bates includes receiving an indication of an event that is related to at least one of the state attributes (Bates, sections 1.1, 2.2, and 2.3, 5.2, Fig. 2); the method of Bates also includes determining that an occurrence of the event is of interest if criteria related to the event are satisfied by the occurrence (Bates, sections 1.1, 2.2, and 2.3, 5.2, Fig 2); the method of Bates also includes sending to Middleware support or trader (an intermediary module) an indication of the event and of the criteria (Bates, sections 2.2, and 2.3, Fig. 2); the method of Bates further includes after an occurrence of the event that satisfies the criteria, receiving from the Middleware support or trader (intermediary module) a notification of the occurrence (Bates, sections 2.2, and 2.3, Fig. 2 ); and lastly, the method of Bates further includes performing processing based on the received notification (Bates, sections 1.1, 2.2, and 2.3, Fig. 2).

With regard to claim 77:

As per "the method of claim 76 wherein the processing includes presenting information to a user. " (Bates, sections 1.1).

With regard to claim 78:

As per "The method of claim 76 wherein the state attributes represent information about a user of the computer." (Bates, sections 1.1, 2.4).

With regard to claim 79:

As per "The method of claim 76 including: sending to the intermediary module an

indication of a condition related to a value of at least one of the state attributes; and receiving an indication from the intermediary module that the condition is satisfied.

"(Bates, sections 1.1, 2.2, 2.4, 5.2 and .3, Fig. 1).

With regard to claim 80:

Claim 80 is a computer-readable medium claim corresponding to method claim 76, thus, is rejected under the same rational.

With regard to claim 81:

Claim 81 is a device claim corresponding to method claim 76, thus, is rejected under the same rational.

With regard to claim 93:

Bates discloses a method in a computer for providing information about a current state of the mobile user that is modeled with multiple state attributes, such as nearby devices to the user and location of the user (Bates, sections 2.2, 2.3, Fig. 2); the method includes receiving from a client module or user a request to receive notification when a specified type of occurrence related to at least one of the multiple state attributes is detected, for example such occurrence event includes Davis may want to be notified when John moves (condition satisfied) to his room or to another room (Bates, sections 1.1-2.4, Fig. 2);

With regard to claim 94:

As per "The method of claim 93 wherein the detecting of the occurrence includes monitoring occurrences." (Bates, sections 2.2, 2.3, Fig. 2).

With regard to claim 95:

As per "The method of claim 94 wherein the monitoring includes detecting changes in the modeling of the current state."(Bates, sections 2.2, 2.3, Fig. 2).

With regard to claim 96:

As per "The method of claim 93 wherein the specified type of occurrence is satisfaction of a condition related to a value of at least one of the state attributes, and wherein the detecting of the occurrence includes analyzing changes in the values of the at least one state attributes in order to determine when the condition is satisfied."(Bates, sections 1.1-2.4, Fig. 2).

With regard to claim 97:

As per "The method of claim 96 wherein the condition relates to a specified one of the state attributes having a specified value."(Bates, sections 2.2, 2.3, Fig. 2).

With regard to claim 98:

As per "The method of claim 93 wherein the module is a source of values for at least one of the state attributes."(Bates, figs. 5, and 6).

With regard to claim 99:

As per "The method of claim 93 wherein the module is a consumer of values for at least one of the state attributes." (Bates, sections 2.4, and 5.2).

With regard to claim 100:

As per "The method of claim 93 wherein the specifying of the type of occurrence includes specifying criteria that define the type of occurrence, and wherein the specified type of occurrence includes satisfying the specified criteria." (Bates, sections 2.2-2.3).

With regard to claim 101:



As per "The method of claim 100 wherein the specified criteria are not satisfied by the modeled current state at a time of the receiving of the request." (Bates, sections 1-1-2.3).

With regard to claim 102:

As per "The method of claim 100 wherein the specified criteria is a change in a value of a specified state attribute." (Bates, sections 2.2-2.3).

With regard to claim 103:

As per "The method of claim 93 wherein the specified type of occurrence includes a source becoming available to supply values for a specified state attribute." (Bates, section 2.2).

With regard to claim 104:

As per "The method of claim 103 wherein the detecting includes identifying receipt of a value for the specified state attribute." (Bates, sections 1.1- 2.2).

With regard to claim 105:

As per "The method of claim 103 wherein the detecting includes identifying receipt from a source of an indication of an ability to supply values for the specified state attribute." (Section 1.1, fig. 1).

With regard to claim 106:

As per "The method of claim 93 wherein the specified type of occurrence includes availability of a value of a specified state attribute that satisfies a if specified criteria." (sections 1.1-2.3).

With regard to claim 107:

As per "The method of claim 106 wherein each of the sources available to supply values for the specified state attribute at a time of the receiving of the request are unable to supply a value for the specified state attribute that satisfies the specified criteria." (see sections 2.2, and 2.5).

With regard to claim 108:

As per "The method of claim 106 wherein the detecting includes repeatedly requesting at least one of the sources to supply a value for the specified state attribute." (see sections 2.2, and 2.5).

With regard to claim 109:

As per "The method of claim 93 wherein the specified type of occurrence includes a specified source becoming available to supply state attribute values, and wherein the detecting includes determining that the specified source is currently able to supply state attribute values." (see sections 2.2, and 2.5).

With regard to claim 110:

As per "The method of claim 109 wherein the specified source is not available to supply state attribute values at a time of the receiving of the request." (see sections 2.2, and 2.5).

With regard to claim 111:

As per "The method of claim 93 wherein the specified type of occurrence includes a specified client becoming available to receive state attribute values." (see sections 2.2, and 2.5).

With regard to claim 112:

As per "The method of claim 111 wherein the detecting of the occurrence of the specified type is based on receiving a request from the specified client for a value of a state attribute." (see sections 2.2, and 2.5).

With regard to claim 113:

As per "The method of claim 93 wherein the specified type of occurrence includes at least one client expressing an interest in receiving values of a specified state attribute." (see section 2.4).

With regard to claim 114:

As per "The method of claim 93 wherein the computer has access to various devices, and wherein the specified type of occurrence includes a value of one of the state attributes indicating that access to a specified device has become available." (see section 2.2).

With regard to claim 115:

As per "The method of claim 93 wherein the specified type of occurrence includes access to a group of themed attributes becoming available." (section 2.2-2.3).

With regard to claim 116:

As per "The method of claim 93 wherein the providing of the information about the current state: is performed by a characterization module, and wherein the specified type of occurrence includes it value of one of the state attributes indicating that access to other functionality provided by the characterization module has become available." (sections 4.2, and 5.2-5.3, fig. 1).

With regard to claim 117:

As per "The method of claim 116 wherein the other functionality is a specified mediator." (sections 4.2, and 5.2-5.3, fig. 1).

With regard to claim 118:

As per "The method of claim 117 wherein the detecting of the occurrence of the specified type is based on identifying software being loaded that when executed will provide mediating for the specified mediator." (sections 4.2, and 5.2-5.3, fig. 1).

With regard to claim 119:

As per "The method of claim 93 wherein the request includes an indication of a number of times that the notifying of the module is to occur." (sections 1.1-2.2, and 4.2).

With regard to claim 120:

As per "The method of claim 93 wherein the request includes an indication of times during which the notifying of the module is to occur." (sections 1.1-2.2, and 4.2).

With regard to claim 121:

As per "The method of claim 93 wherein the state attributes represent information about a user of the computer." (section 1.1).

With regard to claim 123:

As per "The method of claim 93 wherein the state attributes represent information about the computer." (sections 1.1-2.2, and 4.2).

With regard to claim 124:

As per "The method of claim 93 wherein the state attributes represent information about a physical environment." (Figs. 1-6).

With regard to claim 125:

As per "The method of claim 93 wherein the state attributes represent information about a cyber-environment of a user of the computer." (section 5.3).

With regard to claim 127:

As per "The method of claim 93 wherein the notifying of the module of the detected occurrence prompts the module to present information to a user of the module." (sections 5.3, 6.2)

With regard to claim 128:

As per "The method of claim 93 wherein the notifying of the module of the detected occurrence includes supplying information about the detected occurrence." (section 1.3).

With regard to claim 129:

As per "The method of claim 93 wherein the request indicates an event such that an occurrence of the indicated event is an occurrence of the specified type." (sections 1.1-2.2)

With regard to claim 130:

Claim 130, while not necessary identical in scope, contains limitations similar to independent claim 133 and therefore is rejected under the same rationale.

With regard to claim 131:

As per "The computer-readable medium of claim 130 wherein the computer-readable medium is a memory of the computing device." (Fig. 1).

With regard to claim 132:

As per "The computer-readable medium of claim 130 wherein the computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents." (section 6.3).

With regard to claim 133:

Bates discloses a computing device for providing information about a current state of the mobile user that is represented with multiple attributes, including user's location and nearby electronic devices. Bates further includes a Middleware service (trader), a request receiver component that is capable of receiving from a client application (module) a request to receive notification when a specified type of occurrence related to at least one of the multiple state attributes is detected (Bates, sections 2.2, and 2.3); and the Middleware service (trader) also includes a notifier component that is capable of, after the receiving of the request, detecting an occurrence of the specified type and notifying the module of the detected occurrence (Bates, sections 2.2, and 2.3, Fig. 1).

With regard to claim 134:

As per "The computing device of claim 133 wherein the request receiver component and the notifier component are part of an intermediary module executing in memory of the computing device." (sections 2.2-2.3).

With regard to claim 135:

As per "The computing device of claim 133 further comprising multiple sources and multiple clients executing in memory of the computing device." (sections 5.2-5.3, figs. 5 and 6)

With regard to claim 136:

The claim is a computing device claim corresponds to claim 133, thus, is rejected under the same reasons given to the rejection of claim 133.

With regard to claim 137:

The claim corresponds to claim 133, thus, is rejected under the same reasons given to the rejection of claim 133.

With regard to claim 138:

As per "The method of claim 137 wherein the detecting of the satisfaction includes monitoring changes in the modeling of the current state." (see sections 2.3-2.5).

With regard to claim 139:

As per "The method of claim 137 wherein the detecting of the satisfaction includes analyzing changes in the values of the at least one state attributes in order to determine when the condition is satisfied." (see sections 3.1, and 8).

With regard to claim 140:

As per "The method of claim 137 wherein the condition relates to a specified one of the state attributes having a specified value." (see section 7.2).

With regard to claim 141:

As per "The method of claim 137 wherein the module is a source of values for at least one of the state attributes." (see sections 4.2, and 7.2).

With regard to claim 142;

As per "The method of claim 137 wherein the module is a consumer of values for at least one of the state attributes." (see sections 4.2, and 7.2).

With regard to claim 143:

As per "The method of claim 137 wherein the indication of the condition includes an indication of a number of times that the notifying of the module is to occur." (see section 1.2.2).

With regard to claim 144:

As per "The method of claim 137 wherein the indication of the condition includes an indication of times during which the notifying of the module is to occur." (see section 8).

With regard to claim 145:

As per "The method of claim 137 wherein the state attributes represent information about a user of the computer." (see section 1.1).

With regard to claim 147:

As per "The method of claim 137 wherein the notifying of the module of the detected satisfaction prompts the module to present information to a user of the module." (see sections 5.3, 6.2)

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 122, 126 and 146 rejected under 35 U.S.C. 103(a) as being unpatentable over

John Bates, et al., "Middleware Support for Mobile Multimedia Applications," (1997) in view of Schmidt, et al., "There is more to context than location," (November 1998).

With regard to claim 122:



While Bates discloses information reflecting the physical location of a target user and a nearest electronic device to a target user, Bates does not show information reflecting a modeled mental state of the user. Bates does not show the state attributes representing current predictions about a future state, and wherein the represented information reflects a modeled mental state of the user." However, Schmidt et al discloses a plurality of sensory devices attached to a computer including, among others, a sensor to reflect the mental state of the user (Fig. 1, section 3.1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate Schmidt's sensory devices with Bates because incorporating a plurality of sensory devices will be advantageous for a better understanding, modeling or representing of the user of the device or the device.

***Allowable Subject Matter***

8. Claims 82-92 are allowed:

The following is an examiner's statement of reasons for allowance:

These claims recite a method in a wearable computing environment for providing information about a current state of a user of the wearable computer. While the prior art of records recite a method in a computing environment for providing information about a state of, among others states, a computer, and a user of the computer. But the prior art of records does not explicitly describe the claimed component modules and the combined functional steps performed by these component modules under a wearable computer environment. Thus, the prior art of records does not anticipate or render claims 82-92.

### Conclusion

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tadesse Hailu, whose telephone number is (703) 306-2799. The Examiner can normally be reached on M-F from 10:00 - 8:30 ET. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, John Cabeca, can be reached at (703) 308-3116 Art Unit 2173 CPK 2-4A51.
10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

*Tadesse Hailu*

March 2, 2004

**BA HUYNH**  
**PRIMARY EXAMINER**